UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,522	09/01/2006	Asahito Hasegawa	20287/0205365-US0	6859

7278 7590 08/07/2008

DARBY & DARBY P.C.
P.O. BOX 770
Church Street Station
New York, NY 10008-0770

EXAMINER	
FERGUSON, LAWRENCE D	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
08/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,522	HASEGAWA ET AL.	
	Examiner	Art Unit	
	LAWRENCE D. FERGUSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/24/07;9/1/06;2/5/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The references disclosed within the information disclosure statement (IDS) submitted on July 24, 2007, February 5, 2007 and September 1, 2006 have been considered and initialed by the Examiner.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Triebel et al (U.S. 4,201,828).

Gelderie discloses a laminated glass film comprising intermediate layers consisting of different materials including polyvinyl butyral (PVB) and fluorinated hydrocarbons (THV) (column 1, lines 6-7 and column 3, lines 14-21). Gelderie does not explicitly disclose an adhesive bonding the layers together. Because Gelderie does not specifically teach an adhesive bonding the PVB and THV layers together, one of ordinary skill in the art would look to the prior art, such as Triebel, to teach adhesively

bonding the glass laminate layers together. Triebel teaches a glass laminate where the individual layers are connected by an adhesive layer of polyvinyl butyral (abstract and column 1, lines 24-31). Gelderie and Triebel are combinable because they are related to a similar technical field, which is glass laminates. It would have been obvious to one of ordinary skill in the art to include the PVB adhesive layers, as taught by Triebel, to bond the glass laminate layers of Gelderie to achieve the predictable result of increasing the durability and internal strength of the glass laminate, as in claims 1, 4 and 8.

Concerning claim 2, Gelderie discloses the sheets each have a thickness of 0.38 mm (column 3, lines 30-37).

Concerning claims 3 and 6-7, because the intermediate layers comprise sheets including PVB and THV, it is reasonable to expect the additional PVB and THV layers to be on both sides of the laminated film, as the top PVB and THV sheets are near to the top side of the film and the bottom PVB and THV sheets are near the bottom side of the laminate.

Concerning claim 9, Gelderie discloses the laminated glass has two outer glass sheets (column 3, lines 31-34).

Claim Rejections – 35 USC § 103(a)

4. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Triebel et al (U.S. 4,201,828) further in view of Karschti et al (U.S. 6,770,375).

Gelderie and Triebel are relied upon for instant claim 1, as above. Neither reference discloses the glass plates are made of soda lime glass or borosilicate glass. Karschti teaches a glass laminate composted of glass material made from tempered lime/soda glass or borosilicate glass (column 5, lines 20-27). All of the references are combinable because they are related to a similar technical field, which is glass laminates. It would have been obvious to one of ordinary skill in the art to substitute the soda-lime glass or borosilicate glass of Karschti for the glass of Gelderie and Triebel because they are functional equivalents and to achieve the predictable result of improving the strength and stability of the laminate (abstract), as in claims 10-11.

Concerning claims 12-13, Gelderie discloses a laminated glass film comprising intermediate layers including fluorinated hydrocarbons (THV) (column 1, lines 6-7 and column 3, lines 14-21).

Concerning claims 14-16, Gelderie discloses a laminated glass film comprising intermediate layers consisting of different materials including polyvinyl butyral (PVB), fluorinated hydrocarbons (THV) and polyethylene vinyl acetate (column 1, lines 6-7 and column 3, lines 14-21).

Concerning claims 17-18, the phrases, “resin interlayer film is subjected to flame retardant treatment” and “resin interlayer film is subjected to cross-linking treatment” introduce process limitations to the product claims. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695,

698, 227 USPQ 964, 966. Further, process limitations are given little patentable weight in product claims.

Claim Rejections – 35 USC § 103(a)

5. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Triebel et al (U.S. 4,201,828) in view of Karschti et al (U.S. 6,770,375) further in view of Gutweiler et al (U.S. 5,384,346).

Gelderie, Triebel and Karschti are relied upon for instant claim 11, as above. None of the references discloses phosphorus added to the PVB film. Gutweiler teaches Improving the thermal stability of polyvinyl butyrals interlayers by adding phosphorus to PVB interlayers (abstract and column 1, lines 5-13) where phosphorus functions as a flame retardant. It would have been obvious to one of ordinary skill in the art to add phosphorus to the PVB layer of Gelderie to achieve the predictable result of improving the thermal stability and light resistance of the PVB layer (abstract and column 1, lines 5-13).

Claim Rejections – 35 USC § 103(a)

6. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Suzuki et al (U.S. 6,042,928).

Gelderie discloses a laminated glass film comprising intermediate layers consisting of different materials including polyvinyl butyral (PVB) and fluorinated hydrocarbons (THV) (column 1, lines 6-7 and column 3, lines 14-21). Gelderie does not explicitly disclose an adhesive bonding the layers together. Because Gelderie does not specifically teach an adhesive bonding the PVB and THV layers together, one of ordinary skill in the art would look to the prior art, such as Suzuki, to teach adhesively bonding the glass laminate layers together. Suzuki teaches a glass laminate having a silane coupling agent adhesive layers to bond the layers together (column 1, lines 4-5 and column 11, lines 46-51). Gelderie and Suzuki are combinable because they are related to a similar technical field, which is glass laminates. It would have been obvious to one of ordinary skill in the art to include the silane coupling adhesive layers, as taught by Suzuki, to bond the glass laminate layers of Gelderie to achieve the predictable result of increasing the durability and internal strength of the glass laminate, as in claims 1, 4-5 and 8.

Concerning claim 2, Gelderie discloses the sheets each have a thickness of 0.38 mm (column 3, lines 30-37).

Concerning claims 3 and 6-7, because the intermediate layers comprise sheets including PVB and THV, it is reasonable to expect the additional PVB and THV layers to be on both sides of the laminated film, as the top PVB and THV sheets are near to the top side of the film and the bottom PVB and THV sheets are near the bottom side of the laminate.

Concerning claim 9, Gelderie discloses the laminated glass has two outer glass sheets (column 3, lines 31-34).

Claim Rejections – 35 USC § 103(a)

7. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Suzuki et al (U.S. 6,042,928) further in view of Karschti et al (U.S. 6,770,375).

Gelderie and Suzuki are relied upon for instant claim 1, as above. Neither reference discloses the glass plates are made of soda lime glass or borosilicate glass. Karschti teaches a glass laminate composted of glass material made from tempered lime/soda glass or borosilicate glass (column 5, lines 20-27). All of the references are combinable because they are related to a similar technical field, which is glass laminates. It would have been obvious to one of ordinary skill in the art to substitute the soda-lime glass or borosilicate glass of Karschti for the glass of Gelderie and Suzuki because they are functional equivalents and to achieve the predictable result of improving the strength and stability of the laminate (abstract), as in claims 10-11.

Concerning claims 12-13, Gelderie discloses a laminated glass film comprising intermediate layers including fluorinated hydrocarbons (THV) (column 1, lines 6-7 and column 3, lines 14-21).

Concerning claims 14-16, Gelderie discloses a laminated glass film comprising intermediate layers consisting of different materials including polyvinyl butyral (PVB),

fluorinated hydrocarbons (THV) and polyethylene vinyl acetate (column 1, lines 6-7 and column 3, lines 14-21).

Concerning claims 17-18, the phrases, "resin interlayer film is subjected to flame retardant treatment" and "resin interlayer film is subjected to cross-linking treatment" introduce process limitations to the product claims. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given little patentable weight in product claims.

Claim Rejections – 35 USC § 103(a)

8. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelderie et al. (U.S. 6,479,155) in view of Suzuki et al (U.S. 6,042,928) in view of Karschti et al (U.S. 6,770,375) further in view of Gutweiler et al (U.S. 5,384,346).

Gelderie, Suzuki and Karschti are relied upon for instant claim 11, as above. None of the references discloses phosphorus added to the PVB film. Gutweiler teaches Improving the thermal stability of polyvinyl butyrals interlayers by adding phosphorus to PVB interlayers (abstract and column 1, lines 5-13) where phosphorus functions as a flame retardant. It would have been obvious to one of ordinary skill in the art to add phosphorus to the PVB layer of Gelderie to achieve the predictable result of improving

the thermal stability and light resistance of the PVB layer (abstract and column 1, lines 5-13).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/L. Ferguson/
Patent Examiner
AU 1794

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794